

## **DETAILED ACTION**

### ***Response to Arguments***

The application was reopened after the Pre-Brief Conference request. The reopening was not in response to the applicant arguments. The office had a need for clarifying its position further so as to properly represent its reasoning in the fullest for the applicant to understand the rejection. The arguments presented under this section will be reflected in the rejection set forth below.

The applicant argues Rappaport fails to disclose grouping reception points. The claim limitation reads, "reception points are divided into groups for singular or plural reception points." A group consisting of a singular reception point is read upon as a single watch tower as taught by Rappaport. The reception points in Rappaport being singular groupings of the reception points thereby teaching the claim limitation as presented of "singular **or** plural reception points." The watch towers are disposed throughout a display region by a user recording the readings on the region. Therefore the signal being sent out, the ray, is received by each of the towers in various locations in the region. Therefore, the region is divided into groupings of each watch tower as desired by the data being recorded, each group containing a group of a signal reception points.

The second part of the **or** limitation of plural reception points in the reception groups is taught by Senga. The second part of the limitation is taught to give complete coverage to the **or** limitation. The claim as presented is taught and disclosed by the Rappaport reference as the Rappaport reference satisfies the **or** limitation as described

above and clarified in the rejection below. Therefore, the processing which is done in regard to the watch points in the observation region, is done to a reception group of a singular reception point. The singular reception group sends back data such as the RSSI, SIR ration, SNR, FER and BER or other metrics, the processing being applied to the grouping of the reception point group.

In regard to the combination of Rappaport and Senga, both of the cited references involve the setup of an area in which a communication network will be deployed. Each reference discloses how to treat a signal being sent and the most efficient way to process the signal. This is also read upon as the prediction of the ray as the determination as the information gathered helps in the optimization of the base stations in the area. By optimizing the location of the base stations, the signals processed by the base station are thereby processing in the most efficient manner available. This is read upon as predicting the path of a ray as the best available path is made known and how it will travel and be processed.

**Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 14 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rappaport et al. (U.S. Pat. No. 7,085,697) in view of Senga et al. (U.S. Pub. No. 2002/0065928

In regard to claims 1, 14 and 27, Rappaport teaches a reception determination method of a ray, in which a path of a ray provided within an observation region is predicted, (*Rappaport teaches designing/deploying a communications network inside of an office building or similar type of structure in which the optimal base station location is to be found. The observation region is such as seen in Fig 4 of the area surrounding transmitter 107, Col 7, Ln 62-67; Fig 4*) and reception determination processing is applied to reception points of said ray which are arranged in advance within said observation region, (*the reception points are read in Rappaport as the watch points which are placed by the designers all around the observation region where they believe it is best served to gather the best information for design of the communication system, The watch points send back data such as a received signal strength, RSSI, SIR ratio, SNR ratio, FER and BER or other performance metrics, the processing being applied to the determined watch points of interest by the designers. Col 8, Ln 29-33, Ln 43-46; Col 8 Ln 63-Col 9 Ln 13*) characterized in that the reception points arrange within said

observation region are divided into group for singular reception points said reception determination processing is applied to reception point groups including the points to which processing is needed. *(each watch point can be considered a singular group for reception processing at that particular point or group of one point. the processing is applied to the singular group for sending back the data received at the point by users deisgning, Col 8, Ln 29-33, 43-46)*

Rappaport teaches a singular grouping of reception points to teach the limitation of "singular or plural reception points." Rappaport does not teach the second part of the "or" limitation of reception points are arranged into groups containing a plurality of points within the observation region for plural reception point grouping. To provide extra teaching of the obvious variant of the limitation the Senga reference is used to teach plural reception grouping.

Senga teaches a multicast system which puts multiple terminals into groups containing multiple terminals for reception processing. The terminals are then able to be controlled group by group rather than on an individual basis. (Para 18-23, 106-110)

It would have been obvious to one of ordinary skill in the art to modify Rappaport to include the teachings of Senga. Senga teaches reception points being placed into groups for ease of reception processing by being able to control terminals with a group signal rather than all separate individual signals. Placing terminals in groups allows for ease of control of all the reception points. When placed in combination with Rappaprt, the combination would disclose reception processing of the ray upon reception points in the observation region that are placed into multiple groups.

***Allowable Subject Matter***

3. Claims 2-13 and 15-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC ELCENKO whose telephone number is (571)272-8066. The examiner can normally be reached on M-F 7:30 AM through 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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